# => d his

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(FILE 'REGISTRY' ENTERED AT 12:36:26 ON 14 OCT 2004)
                DEL HIS Y
               ACT BLESSING3/A
               ----<del>----</del>
                STR
L1
L2
                SCR 2040
            736) SEA FILE=REGISTRY SSS FUL L1 AND L2
L3
   (
L4
                STR
           '249 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
L5
              _____
             55 S L5 AND PMS/CI
L6
             9 S L5 AND POLYETHER/PCT
L7
L8
               STR L5
                STR L4
Ľ9
               STR L9
L10
             23 SEARCH L10 SSS SUB=L5 FUL
L11
                SAVE L11 TEMP BLESSING4/A
            41 S L6 NOT (L7 OR L11)
L12
     FILE 'CAPLUS' ENTERED AT 12:44:29 ON 14 OCT 2004
             16 S L7 OR L11
L13
             30 S L12
L14
     FILE 'REGISTRY' ENTERED AT 12:46:12 ON 14 OCT 2004
     FILE 'CAPLUS' ENTERED AT 12:47:39 ON 14 OCT 2004
           4 S L14 AND (63 OR 1)/SC,SX
L15
```

=> fil reg
FILE 'REGISTRY' ENTERED AT 12:49:28 ON 14 OCT 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 OCT 2004 HIGHEST RN 762228-78-4 DICTIONARY FILE UPDATES: 13 OCT 2004 HIGHEST RN 762228-78-4

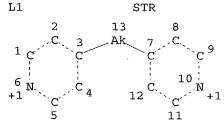
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> d que stat 15



NODE ATTRIBUTES:

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L3 ( 736)SEA FILE=REGISTRY SSS FUL L1 AND L2 L4 STR

NODE ATTRIBUTES:

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L5 249 SEA FILE=REGISTRY SUB=L3 SSS FUL L4

100.0% PROCESSED 736 ITERATIONS ( 1 INCOMPLETE) 249 ANSWERS

SEARCH TIME: 00.00.01

=> d que stat 17
L1 STR

2 13 8
1 C 3 Ak 7 C 29
6 N 12 C N +1
5 11

NODE ATTRIBUTES:

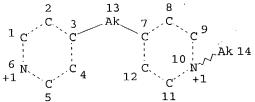
CHARGE IS E+1 AT 6
CHARGE IS E+1 AT 10
CONNECT IS E2 RC AT 13
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L2 SCR 2040
L3 ( 736)SEA FILE=REGISTRY SSS FUL L1 AND L2
L4 STR



NODE ATTRIBUTES:

GGCAT IS SAT AT 13 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L5 249 SEA FILE=REGISTRY SUB=L3 SSS FUL L4

L7 9 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND POLYETHER/PCT

=> d que stat l11
L1 STR

2 13 8
1 C 3 Ak 7 C C 9
6 N 12 C 10 N +1
5 11

NODE ATTRIBUTES:

CHARGE IS E+1 AT 6
CHARGE IS E+1 AT 10
CONNECT IS E2 RC AT 13
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L2 SCR 2040

L3 ( 736)SEA FILE=REGISTRY SSS FUL L1 AND L2 L4 STR

2 13 8 7 C 9 C C 9 Ak 14 14 12 C +1 11

NODE ATTRIBUTES:

CHARGE IS E+1 AT 6
CHARGE IS E+1 AT 10
CONNECT IS E2 RC AT 13
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 13
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

searched by Alex Waclawiw Page 4

NODE ATTRIBUTES:

CHARGE IS E+1 AT 6
CHARGE IS E+1 AT 10
CONNECT IS E2 RC AT 13
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 13
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L11 23 SEA FILE=REGISTRY SUB=L5 SSS FUL L10

100.0% PROCESSED 249 ITERATIONS 23 ANSWERS

SEARCH TIME: 00.00.01

=> fil caplus FILE 'CAPLUS' ENTERED AT 12:50:15 ON 14 OCT 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 14 Oct 2004 VOL 141 ISS 16 FILE LAST UPDATED: 13 Oct 2004 (20041013/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d que nos 113 L1 STR L2 SCR 2040 L3 ( 736)SEA FILE=REGISTRY SSS FUL L1 AND L2

searched by Alex Waclawiw Page 5

```
L4
                STR
L5
            249 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
L7
              9 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND POLYETHER/PCT
L10
             23 SEA FILE=REGISTRY SUB=L5 SSS FUL L10
L11
L13
             16 SEA FILE=CAPLUS ABB=ON PLU=ON L7 OR L11
⇒> d què nos 115
L1
                STR
                SCR 2040
L2
L3
            736) SEA FILE=REGISTRY SSS FUL L1 AND L2
T.4
                STR
            249 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
L_5
             55 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND PMS/CI
Lб
              9 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND POLYETHER/PCT
L7
T<sub>1</sub>10
L11
             23 SEA FILE=REGISTRY SUB=L5 SSS FUL L10
             41 SEA FILE=REGISTRY ABB=ON PLU=ON L6 NOT (L7 OR L11)
L12
T.14
             30 SEA FILE=CAPLUS ABB=ON PLU=ON L12
              4 SEA FILE=CAPLUS ABB=ON PLU=ON L14 AND (63 OR 1)/SC,SX
L15
=> d .ca hitstr l13 1-6;d .ca hitstr l15 1-4
L13 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                         2004:245248 CAPLUS
DOCUMENT NUMBER:
                         141:16493
TITLE:
                         Separation of quaternary ammonium diastereomeric
                         oligomers by capillary electrophoresis
AUTHOR (S):
                         Zhang, Bin; Krull, Ira S.; Cohen, Aharon; Smisek,
                         David L.; Kloss, Alla; Wang, Bing; Bourgue, Andre J.
                         Department of Chemistry, Northeastern University,
CORPORATE SOURCE:
                         Boston, MA, 02115, USA
SOURCE:
                         Journal of Chromatography, A (2004), 1034(1-2),
                         CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER:
                         Elsevier Science B.V.
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     The separation of novel diastereomeric trimers (3M) and pentamers (5M), derived
     from quaternary ammonium salts, was studied in conventional, uncoated and
     coated capillaries using capillary zone electrophoresis (CZE) with a
     variety of buffers and additives. Resolution of 5M diastereomers was best
     achieved using gamma-cyclodextrin (gamma-CD) as a chiral selector, while
     no diastereomeric resolution was realized for the 3M material.
CC
     80-4 (Organic Analytical Chemistry)
     693799-60-9 693799-62-1
TT
     RL: ANT (Analyte); ANST (Analytical study)
        (diastereomers; separation of quaternary ammonium diastereomeric oligomers
        by capillary electrophoresis)
IT
     693799-62-1
     RL: ANT (Analyte); ANST (Analytical study)
        (diastereomers; separation of quaternary ammonium diastereomeric oligomers
        by capillary electrophoresis)
     693799-62-1 CAPLUS
RN
     Pyridinium, 1,1'-(2,7-dihydroxy-1,8-octanediyl)bis[4-[3-[1-[8-(acetyloxy)-
CN.
     2,7-dihydroxyoctyl]pyridinium-4-yl]propyl]- (9CI) (CA INDEX NAME)
```

PAGE 1-A

PAGE 1-B

OH OH CH2 OH CH2 
$$_{1}$$
 CH2 CH CH2  $_{2}$  CH CH2  $_{3}$  CH2 CH CH2  $_{4}$  CH CH2  $_{2}$  CH CH2  $_{3}$  CH2 CH CH2  $_{4}$  CH CH2  $_{2}$  CH2 CH2  $_{3}$  CH2 CH2  $_{4}$  CH2 CH2  $_{4}$  CH2 CH2  $_{2}$  CH2 CH2  $_{2}$  CH2 CH2  $_{3}$  CH2 CH2  $_{4}$  CH2 CH2  $_{2}$  CH2 CH2  $_{2}$  CH2 CH2  $_{3}$  CH2 CH2  $_{3}$  CH2 CH2  $_{3}$  CH2 CH2  $_{4}$  CH2 CH2  $_{2}$  CH2 CH2  $_{3}$  CH2 CH2  $_{3}$  CH2 CH2  $_{3}$  CH2 CH2  $_{4}$  CH2  $_{4}$ 

PAGE 1-C

— сн<sub>2</sub>— одс

REFERENCE COUNT:

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:45658 CAPLUS

DOCUMENT NUMBER:

138:238999

TITLE:

Ordered Polyelectrolyte Multilayers. Rules Governing

Layering in Organic Binary Multilayers

AUTHOR(S):

Arys, Xavier; Fischer, Peter; Jonas, Alain M.; Koetse,

Marc M.; Laschewsky, Andre; Legras, Roger;

Wischerhoff, Erik

CORPORATE SOURCE:

Unite de Physique et de Chimie des Hauts Polymeres and

Unite de Chimie des Materiaux, Universite Catholique

de Louvain, Louvain-la-Neuve, B-1348, Belg.

SOURCE: Journal of the American Chemical Society (2003), 125(7), 1859-1865

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The authors study the growth and internal structure of polyelectrolyte multilayers obtained by combining three polyanions with nine polycations of the ionene family, of systematically varied chemical architecture. Contrary to a generally held belief, ordered organic multilayers are by no way exceptional, provided one of the polyelectrolytes bears groups which induce structure in water, such as long hydrophobic segments or mesogenic groups. However, this condition is not sufficient, as order will or will

not emerge in the multilayer depending on the specific pairing of the polyelectrolytes. The results support the notion that layering in the multilayer results from some degree of prestructuring of a water-swollen layer adsorbed during each step of deposition. These findings pave the way to new possible uses of polyelectrolyte multilayers, for example, for applications requiring preferential alignment or strong confinement of specific functional groups.

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 36

IT 9002-97-5, Sodium vinyl sulfonate homopolymer 25704-18-1, Sodium p-styrenesulfonate homopolymer 26182-60-5 178861-34-2 182972-08-3 195131-20-5 501444-15-1 501444-16-2 501444-17-3 501444-18-4

**501444-20-8 501444-21-9** 501444-22-0 501444-23-1 501444-24-2 501444-25-3 501444-26-4 501444-27-5 501444-28-6

501444-29-7 **501444-30-0 501444-31-1** 501444-32-2

 $501444 - 33 - 3 \qquad 501444 - 34 - 4 \qquad 501444 - 35 - 5 \qquad 501444 - 36 - 6 \qquad 501444 - 37 - 7$ 

501444-38-8 501444-39-9 501444-40-2 501444-41-3 501444-42-4

501444-43-5 **501444-44-6** 501444-45-7 501444-46-8

501444-47-9 501444-48-0 501444-49-1 501444-50-4 501444-51-5

501444-52-6 501444-53-7 501444-54-8 501444-55-9 501444-56-0

501444-57-1 501444-58-2 501444-59-3 501444-60-6 501444-61-7

501444-62-8 501444-63-9 501444-64-0 501444-65-1 501444-66-2

RL: PRP (Properties)

(growth and internal structure of ordered polyelectrolyte multilayers obtained by combining polyanions with polycations of ionene family)

501444-20-8 501444-21-9 501444-30-0

501444-31-1 501444-44-6

RL: PRP (Properties)

(growth and internal structure of ordered polyelectrolyte multilayers obtained by combining polyanions with polycations of ionene family)

RN 501444-20-8 CAPLUS

N Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(3-carboxypropyl)-, dibromide, polymer with 2,2'-(phenylimino)bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

IT

CRN 501444-19-5

CMF C21 H28 N2 O4 . 2 Br

$$(CH_2)_3$$
 $N^+$ 
 $(CH_2)_3 - CO_2H_2$ 

●2 Br

CM 2

CRN 120-07-0

CMF C10 H15 N O2

RN 501444-21-9 CAPLUS

CN Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(3-carboxypropyl)-, dibromide, polymer with 2,2'-[[4-(3-pyridinylazo)phenyl]imino]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 501444-19-5 CMF C21 H28 N2 O4 . 2 Br

$$_{\text{HO}_2\text{C}-\text{(CH}_2)_3}^{+}$$
 (CH<sub>2</sub>)<sub>3</sub> - CO<sub>2</sub>H

●2 Br-

CM 2

CRN 54292-59-0 CMF C15 H18 N4 O2

$$\begin{array}{c|c} \operatorname{HO-CH_2-CH_2} \\ \operatorname{HO-CH_2-CH_2-N} \\ \end{array}$$

RN 501444-30-0 CAPLUS

CN Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(3-carboxypropyl)-, dibromide, polymer with 2,2'-(phenylimino)bis[ethanol], compd. with potassium ethenyl sulfate homopolymer (9CI) (CA INDEX NAME)

 $\text{CM} \quad \cdot 1$ 

CRN 501444-20-8

CMF (C21 H28 N2 O4 . C10 H15 N O2 . 2 Br)x

CCI PMS

CM 2

CRN 501444-19-5

CMF C21 H28 N2 O4 . 2 Br

$$_{\rm HO_2C-~(CH_2)_3}^{\rm +}$$
  $_{\rm CH_2)_3-CO_2H}^{\rm +}$ 

●2 Br~

CM 3

CRN 120-07-0 CMF C10 H15 N O2

$$\begin{array}{c} & \text{Ph} \\ | \\ \text{HO-} \ \text{CH}_2 - \ \text{CH}_2 - \ \text{CH}_2 - \ \text{CH}_2 - \ \text{OH} \end{array}$$

CM 4

CRN 26182-60-5 CMF (C2 H4 O4 S . K)x CCI PMS

CM 5

CRN 44587-64-6 CMF C2 H4 O4 S . K

 $H_2C = CH - OSO_3H$ 

K

RN 501444-31-1 CAPLUS

CN Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(3-carboxypropyl)-, dibromide, polymer with 2,2'-[[4-(3-pyridinylazo)phenyl]imino]bis[ethanol], compd. with potassium ethenyl sulfate homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 501444-21-9

CMF (C21 H28 N2 O4 . C15 H18 N4 O2 . 2 Br)x

CCI PMS

CM 2

CRN 501444-19-5 CMF C21 H28 N2 O4 . 2 Br

$$(CH_2)_3$$
 $N^+$ 
 $(CH_2)_3 - CO_2H$ 

●2 Br -

CM 3

CRN 54292-59-0 CMF C15 H18 N4 O2

$$\begin{array}{c|c} & \text{HO-CH}_2\text{-CH}_2\\ \text{HO-CH}_2\text{-CH}_2\text{-N} & & & \\ & & & & \\ \end{array}$$

CM 4

CRN 26182-60-5

CMF (C2 H4 O4 S . K)x

CCI PMS

CM 5

CRN 44587-64-6 CMF C2 H4 O4 S . K

 $H_2C = CH - OSO_3H$ 

K

RN 501444-44-6 CAPLUS

CN Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(3-carboxypropyl)-, dibromide, polymer with 2,2'-[[4-(3-pyridinylazo)phenyl]imino]bis[ethanol], compd. with sodium 4-ethenylbenzenesulfonate homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 501444-21-9

CMF (C21 H28 N2 O4 . C15 H18 N4 O2 . 2 Br)x

CCI PMS

CM 2

CRN 501444-19-5

searched by Alex Waclawiw Page 11

CMF C21 H28 N2 O4 . 2 Br \

$$_{\text{HO}_2\text{C}-\text{(CH}_2)_3}^+$$
  $_{\text{(CH}_2)_3-\text{CO}_2\text{H}}^+$ 

●2 Br~

CM 3

CRN 54292-59-0 CMF C15 H18 N4 O2

$$\begin{array}{c} \text{HO-CH}_2\text{-CH}_2\\ \text{HO-CH}_2\text{-CH}_2\text{-N}\\ \end{array}$$

CM 4

CRN 25704-18-1

CMF (C8 H8 O3 S . Na)x

CCI PMS

CM 5

CRN 2695-37-6

CMF C8 H8 O3 S . Na

$$_{\mathrm{CH}=\mathrm{CH}_{2}}^{\mathrm{Ho}_{3}\mathrm{S}}$$

Na

REFERENCE COUNT:

55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:664786 CAPLUS

DOCUMENT NUMBER:

136:20953

TITLE:

Simple zwitterionic merocyanines as potential NLO

searched by Alex Waclawiw Page 12

Blessing Fubera 10/051,766 chromophores Kay, A. J.; Woolhouse, A. D.; Gainsford, G. J.; AUTHOR(S): Haskell, T. G.; Wyss, C. P.; Giffin, S. M.; McKinnie, I. T.; Barnes, T. H. CORPORATE SOURCE: Industrial Research Limited, Lower Hutt, N. Z. Journal of Materials Chemistry (2001), 11(9), SOURCE: 2271-2281 CODEN: JMACEP; ISSN: 0959-9428 PUBLISHER: Royal Society of Chemistry Journal DOCUMENT TYPE: LANGUAGE: English OTHER SOURCE(S): CASREACT 136:20953 A suite of zwitterionic pyridylidene-based merocyanines that contain no interconnecting  $\pi$ -bridge between the donor and acceptor rings has been synthesized and their second-order NLO properties evaluated largely by semi-empirical computational methods (MOPAC 97/AM1). Contrary to expectation, increasing the degree of inter-ring twist  $(\theta)$ , at least up to 55°, in these new pyridylideneazolone chromophores is found to have little or no effect on the figure of merit  $[\mu\beta(0)]$ . An X-ray crystallog. appraisal of one of these chromophores, , reveals however that the twist angle (albeit in the solid state) is greater than that predicted by computation and that all other features are consistent with the highly zwitterionic nature of these systems. In spite of this, a combination of factors-insufficient acceptor strength, insufficient extent of conjugation and perhaps insufficient twist angle, in particular clearly leads to the low values of the quadratic hyperpolarizabilities. The trade-off between targeting a more modest hyperpolarizability term from a min. of  $\pi$ -conjugating framework between donor and acceptor (and therefore synthetic expediency) and seeking a moderate-to-high dipole moment has therefore resulted in only low figures of merit for these systems. Calcns. performed on a suite of readily accessible, isoelectronic cyanines, in which the acceptor is a stabilized cyclopentadienide carbocycle rather than a heterocycle, have revealed the potential that these systems have as NLO chromophores. Representative polymer-tetherable derivs. of this system have been prepared as have the corresponding TDI-based polyurethanes. 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic CCSensitizers) Section cross-reference(s): 22, 27, 35, 73, 75 6631-89-6P 7153-08-4P, 3,5-Diiodo-4-hydroxypyridine 13993-58-3P, 21346-21-4P 56226-25-6P 4-Chloro-3,5-diiodopyridine 75914-61-3P 377743-28-7P, 3,5-Diiodo-4-377743-26-5P 377743-27-6P 377743-29-8P 377743-39-0P **377743-42-5P** (phenylthio) pyridine RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of simple zwitterionic merocyanines as potential NLO chromophores) 377743-42-5P ITRL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(intermediate; preparation of simple zwitterionic merocyanines as potential

Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(2-hydroxyethyl)-, diiodide (9CI)

searched by Alex Waclawiw Page 13

(Reactant or reagent)

(CA INDEX NAME)

RN

CN

NLO chromophores) 377743-42-5 CAPLUS

$$_{
m HO-CH_2-CH_2}^{+}$$
  $_{
m CH_2-CH_2-OH}^{+}$ 

●2 T~

REFERENCE COUNT:

THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

40

ACCESSION NUMBER:

1999:328766 CAPLUS

DOCUMENT NUMBER:

131:82077

TITLE:

Lanthanide coordination polymers with

dicarboxylate-like ligands: crystal structures of polymeric lanthanum(III) and terbium(III) complexes

with flexible double betaines

AUTHOR(S):

Mao, Jiang-Gao; Zhang, Hong-Jie; Ni, Jia-Zuan; Wang,

Shu-Bin; Mak, Thomas C. W.

CORPORATE SOURCE:

State Key Laboratory of Structure Chemistry, Fujian Institute of Research on the Structure of Matter, The Chinese Academy of Sciences, Fuzhou, 350002, Peop.

Rep. China

SOURCE:

Polyhedron (1999), 18(10), 1519-1525

CODEN: PLYHDE; ISSN: 0277-5387

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE: LANGUAGE:

Journal English

Four novel polymeric lanthanide(III) complexes of two new double betaine derivs. were synthesized and structurally determined In  $[\{La2(L1)2(H2O)9\}n]Cl6n \cdot 2nH2O(1) \text{ and } [\{Tb(L1)(H2O)4\}n]Cl3n \cdot [\{La2(L1)2(H2O)9\}n]Cl6n \cdot 2nH2O(1) \text{ and } [\{Tb(L1)(H2O)4\}n]Cl3n \cdot [\{Tb(L1)(H2O)4]n]Cl3n \cdot [\{Tb(L1)(H2O)4]n]Cl3n \cdot [\{Tb(L1)(H2O)4]n]Cl3n \cdot$ nH20 (2) (L1 = 4,4'-trimethylenedipyridinio-N,N'-diacetate), the lanthanide(III) ions form a two-dimensional layer in which each pair of lanthanide(III) ions is bridged by two syn-anti  $\mu$ -carboxylato-0,0' groups. Adjacent layers are cross-linked through H bonds among aqua ligands, lattice H2O mols. and chloride ions, to form a three-dimensional network. Isomorphous  $[\{Ln(L2)(H20)4\}n]C13n \cdot 5 nH20 (Ln = La, 3; Ln$ = Tb, 4; L2 = 1,3 bis(pyridinio-4-carboxylato)propane) each contain a centrosym. paddle-wheel-like dimeric unit in which each pair of adjacent metal atoms is bridged by four syn-syn μ-carboxylato-0,0' groups that are oriented nearly perpendicular to each other about the metal-metal axis. Neighboring dimeric subunits are bridged by a pair of flexible L2 ligands into a polymeric chain. Adjacent chains are inter-linked by H bonds among aqua ligands, lattice H2O mols. and chloride ions into a three-dimensional network.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 215432-52-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(in rare earth trimethylenedipyridinio-N,N'-diacetate coordination polymers)

IT 228705-04-2P 228705-05-3P 228705-06-4P 228705-07-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, crystal structure and H bonding in)

IT 215432-52-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(in rare earth trimethylenedipyridinio-N,N'-diacetate coordination
polymers)

RN 215432-52-3 CAPLUS

CN Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(carboxymethyl)-, bis(inner salt) (9CI) (CA INDEX NAME)

$$CH_2 - CO_2$$

IT 228705-04-2P 228705-05-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, crystal structure and H bonding in)

RN 228705-04-2 CAPLUS

CN Lanthanum(6+), nonaaquabis[μ-[1-[(carboxy-κ0:κ0')methyl]-4[3-[1-(carboxymethyl)pyridinium-4-yl]propyl]pyridiniumato(2-)]]di-,
hexachloride, dihydrate (9CI) (CA INDEX NAME)

PAGE 1-A

$$H_{2}O$$
  $OH_{2}$   $O$ 

PAGE 1-B

$$\begin{array}{c|c} & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ \end{array}$$

D2 H<sub>2</sub>O

228705-05-3 CAPLUS RN

Terbium(3+), tetraaqua[1-[(carboxy- $\kappa$ 0)methyl]-4-[3-[1-CN(carboxymethyl)pyridinium-4-yl]propyl]pyridiniumato(2-)]-, trichloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} -\text{O}_2\text{C}-\text{CH}_2 \\ \hline \\ +\\ \text{CH}_2-\text{C}-\text{O} \\ \hline \\ \text{H}_2\text{O} \end{array} \begin{array}{c} \text{OH}_2 \\ \text{OH}_2 \\ \text{OH}_2 \\ \text{OH}_2 \end{array}$$

C1 -

18

REFERENCE COUNT:

PUBLISHER:

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:654326 CAPLUS

DOCUMENT NUMBER: 129:350175

TITLE: Syntheses and crystal structure of erbium(III)

coordination polymers with two flexible double betaine

ligands

AUTHOR(S): Mao, Jiang-Gao; Wu, Hai-Tao; Mak, Thomas C. W.; Zhang,

Hong-Jie; Ni, Jia-Zuan

Fujian Inst. Res. Structure Matter, The Chinese Acad. CORPORATE SOURCE:

Sci., Fuzhou, 35002, Peop. Rep. China

SOURCE: Jiegou Huaxue (1998), 17(5), 353-360

> CODEN: JHUADF; ISSN: 0254-5861 "Jiegou Huaxue" Bianji Weiyuanhui

DOCUMENT TYPE: Journal English LANGUAGE:

Two new polymeric Er(III) complexes of two flexible double betaine ligands were synthesized and characterized by x-ray anal. In

 $\{ Er(L1)(H2O)4 Cl3 \cdot H2O \} n (1) (L1 = 4,4'-trimethylenedipyridinio-$ 

N,N'-diacetate), the Er(III) ions form a two-dimensional metal carboxylate layer in which each pair of Er(III) atoms is bridged by two syn-anti μ-carboxylato-0,0' groups. Adjacent layers are cross-linked through H

bonds among aqua ligands, lattice H2O mols. and chloride ions to form a three-dimensional network. 1 Is monoclinic in the space group C2 with a 27.408(4), b 9.645(3), c 9.423(2) Å,  $\beta$  100.85(1)°, Z = 4, dc = 1.836 g/cm3, R = 0.048 for 2451 reflections with I>2 $\sigma$ (I). {[Er(L2)(H2O)4]Cl3·5H2O}n (2) (L2 = 1,3-bis(pyridinio-4-carboxylato)propane) comprises lanthanide carboxylate chains built from centrosym. dimeric units cross-linked by a pair of L2 ligands, discrete anions and lattice H2O mols. In the dimeric 2, each pair of metal ions is bridged by four syn-syn  $\mu$ -carboxylato-0,0' groups oriented nearly perpendicular to each other about the metal-metal axis. The metal carboxylate chains of 2 are further cross-linked by H bonds to form a three-dimensional network. 2, Is monoclinic in the space group C2/m with a 16.564(3), b 15.839(3), c 11.792(4) Å,  $\beta$  122.27(1)°, Z = 4, dc = 1.833 g/cm3, R = 0.043 for 2436 observed reflection with I>2 $\sigma$ (I).

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 27, 75

IT 215432-48-7P 215432-50-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (polymeric; preparation and crystal structure)

IT **215432-52-3P** 215432-54-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and complexation with erbium)

IT 215432-48-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) . (polymeric; preparation and crystal structure)

RN 215432-48-7 CAPLUS

$$\begin{array}{c|c} -\text{O}_2\text{C}-\text{CH}_2 \\ \uparrow \\ \uparrow \\ \text{(CH}_2)_3 \end{array} \begin{array}{c} \text{O} \\ \text{H}_2\text{O} \\ \text{CH}_2 - \text{C}-\text{O} \\ \hline \\ \text{H}_2\text{O} \end{array} \begin{array}{c} \text{OH}_2 \\ \text{OH}_2 \\ \text{OH}_2 \end{array}$$

●3 Cl -

● H<sub>2</sub>O

IT 215432-52-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and complexation with erbium)

RN 215432-52-3 CAPLUS

CN Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(carboxymethyl)-, bis(inner salt) (9CI) (CA INDEX NAME)

$$-O_2C-CH_2$$
 (CH<sub>2</sub>)<sub>3</sub>  $N_+^+$   $CH_2-CO_2$ 

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1996:535066 CAPLUS

DOCUMENT NUMBER:

TITLE:

125:234370

INVENTOR(S):

Electrophotographic developer composition

PATENT ASSIGNEE(S):

Schwarz, William M.; Fuller, Timothy J.

Xerox Corp., USA

SOURCE:

U.S., 55 pp., Cont. of U.S. Ser. No. 166, 374,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5543259	A	19960806	US 1995-466541	19950606
PRIORITY APPLN. INFO.:			US 1993-166374	19931213
OTHER SOURCE(S):	MARPAT	125:234370		
GI .				

AB Disclosed are dry and liquid electrophotog. developers suitable for the development of electrostatic latent images. The developers contain a colorant selected from the group consisting of (a) compds. of formula I and II (R1 = an electron-withdrawing group; R2-5 = H, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, or substituted arylalkyl; A1, A2 = aryl, substituted aryl, arylalkyl, or substituted arylalkyl), (b) dimeric compds. containing two moieties of I, (c) dimeric compds. containing

two

moieties of II, (d) dimeric compds. containing one moiety of I and one moiety of II, (e) trimeric compds. containing three moieties of I, (f) trimeric compds. containing three moieties of II, (g) trimeric compds. containing two moieties of I and one moiety of II, (h) trimeric compds. containing one moiety of I and two moieties of II, (i) polymeric compds. containing at least four moieties selected from the group consisting of I, II, and mixts. thereof, and (j) mixts. thereof.

ICM G03G009-09 IC

NCL. 430106000

74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other

searched by Alex Waclawiw Page 18

Reprographic Processes)

27074-03-9P, 1,4-Dimethyl-6-hydroxy-3-cyano-2-26092-49**-**9P 117-61-3P

pyridone 41220-29-5P 62073-64**-**7P 168633-56-5P **168633-57-6P** 

181820-17-7P 181820-15-5P 181820-21-3P 181820-12-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction in preparing aromatic diazo dyes for electrophotog

toners) IT 168633-57-6P

IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction in preparing aromatic diazo dyes for electrophotog toners)

168633-57-6 CAPLUS RN

Pyridinium, 4,4'-(1,3-propanediyl)bis[1-(2-amino-2-oxoethyl)-, dichloride CN(CA INDEX NAME)

$$_{\text{H}_{2}\text{N}-\text{C}-\text{CH}_{2}}^{\text{O}}$$
  $_{\text{N}}^{+}$   $_{\text{CH}_{2}-\text{C}-\text{NH}_{2}}^{\text{O}}$ 

2 Cl -

L15 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

2004:453185 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

141:24155

TITLE: INVENTOR(S): Ionene oligomers and polymers ( Fitzpatrick, Richard J.; Shackett, Keith K.

PATENT ASSIGNEE(S):

Genzyme Corporation, USA PCT Int. Appl., 113 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

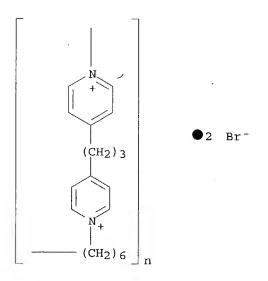
Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE		APPLICATION NO.						DATE						
					A2 20040603			0000	WO 2003-US36938						20031119			
WO	2004	0461	09		A2		2004	0603		NO ZI	003-0	JS30.	930		20031119			
WO	2004	0461	09		A3		2004	0715										
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	ΒÝ,	ΒZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	KZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	
		NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KZ													
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	
		BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	
		MC.	NL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	

GQ, GW, ML, MR, NE, SN, TD, TG PRIORITY APPLN. INFO.: US 2002-427513P P 20021119 Polymerized ionene compds. are known to be effective antimicrobial substances. The mol. weight can affect the safety and efficacy of ionene compds. In particular, low mol. weight ionene oligomers (<50 repeat units, 1-3 k-daltons) are less toxic than larger polymers with identical compns. ICM C07D211-00 IC 35-5 (Chemistry of Synthetic High Polymers) CCSection cross-reference(s): 1, 63 IT 28728-55-4P 31987-01-6P 53037-02-8P 53037-42-6P 53037-50-6P 53149-02-3P 158400-74-9P **158446-46-9P** 443303-47-7P 443303-48-8P 443303-49-9P 443303-50-2P 443303-51-3P 443303-53-5P 443303-54-6P 443303-55-7P 443303-56-8P 443303-57-9P 443303-60-4P 443303-61-5P 443303-62-6P **443303-63-7P** 443303-64-8P 443303-66-0P 443303-67-1P 698365-38-7P 698365-39-8P RL: IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (oligomeric; low mol. weight ionene oligomers and polymers as antimicrobial substances for treatment of infections in patients with) 158446-46-9P 443303-63-7P 698365-39-8P RL: IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (oligomeric; low mol. weight ionene oligomers and polymers as antimicrobial substances for treatment of infections in patients with) RN158446-46-9 CAPLUS Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,6-hexanediyl CNdibromide) (9CI) (CA INDEX NAME)



RN 443303-63-7 CAPLUS

CN Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,9-nonanediyl dibromide) (9CI) (CA INDEX NAME)

Br-

698365-39-8 CAPLUS RN

Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,8-octanediyl CNdichloride) (9CI) (CA INDEX NAME)

### ●2 Cl-

L15 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2004:453042 CAPLUS

DOCUMENT NUMBER: TITLE:

141:7660 Polyionenes for treating infections associated with cystic fibrosis
Fitzpatrick, Richard J.; Shackett, Keith K.

INVENTOR(S):

PATENT ASSIGNEE(S):

Genzyme Corporation, USA

SOURCE:

PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE		APPLICATION NO.						DATE				
WO 2004045629			A1	:	20040603		1	WO 2	003-1		20031119					
WO 2004045629				C1	20040819			·								
W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
	GE,	GH,	GM,	HR,	HU,	ID,	ΙL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,
	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,
	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,
	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,
	AZ,	BY,	KG,	KZ												
RW:	B₩,	GH,	GM,	KΕ,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,
	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	ΗU,	ΙE,	ΙT,	LU,

MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-427512P P 20021119

AB Ionene polymers are used for the treatment or prevention of infections (e.g., pulmonary infections) in cystic fibrosis patients is provided. The method comprises administering to a mammal an effective amount of an ionene polymer to prophylactically or therapeutically treat infections associated with cystic fibrosis. Equimolar amts. of hexamethylenebiscyanoguanidine and 4,9-dioxa-1,12-dodecanediamine were heated in the presence of HCl at 135-145° overnight to give polyionene.

IC ICM A61K031-785

ICS A61K031-787; A61K031-80; A61P011-00

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 1, 63

TT 28728-55-4P 31987-01-6P 53037-01-7P 53037-02-8P 53037-46-0P 53037-50-6P 158400-74-9P **158446-46-9P** 443303-47-7P 443303-48-8P 443303-49-9P 443303-50-2P 443303-51-3P 443303-52-4P

443303-53-5P 443303-54-6P 443303-55-7P 443303-56-8P 443303-57-9P 443303-58-0P 443303-59-1P 443303-60-4P 443303-61-5P 443303-62-6P

**443303-63-7P** 443303-64-8P 443303-65-9P 443303-66-0P

443303-67-1P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ionene polymers for use in treating infections in cystic fibrosis patients)

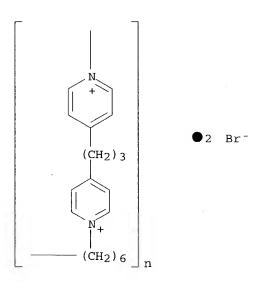
IT 158446-46-9P 443303-63-7P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ionene polymers for use in treating infections in cystic fibrosis patients)

RN 158446-46-9 CAPLUS

CN Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,6-hexanediyl dibromide) (9CI) (CA INDEX NAME)



RN 443303-63-7 CAPLUS

CN Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,9-nonanediyl dibromide) (9CI) (CA INDEX NAME)

$$\left[ \begin{array}{c} \\ \\ \\ \\ \end{array} \right]_{n} \left[ \begin{array}{c} \\ \\ \\ \end{array} \right]_{n}$$

#### ●2 Br

REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:793438 CAPLUS

DOCUMENT NUMBER: 137:304745

TITLE: Ionene polymers and their use as antimicrobial agents

INVENTOR(S): Fitzpatrick, Richard; Klinger, Jeffrey D.; Shackett,

Keith K.

PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA; Genzyme Corp.

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

LANGUAGE: Engli FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

	PA	FENT	NO.			KINI	)	DATE		1	APPL	ICAT	ION 1	. OI		D	ATE		
		2002						2002 2003		WO 2002-US1450						2			
		2002				A3		2003											
		W:						AU,		BA.	BB.	BG.	BR.	BY.	BZ.	CA.	CH.	CN.	
								DK,			-								
								IN,											
								MD,											
								SE,											
								ZA,											
		RW:	,				_	ΜZ,		-									
								FR,											
								CM,											
	US	2003						2003											
	US	2003	0316	44		A1		2003	0213		US 2	002-	5176	5		2	0020	117	
	. EP	1372	675			A2		2004	0102		EP 2	002-	7390	76		2	0020	117	
		R:	ΑT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
			ΙĔ,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR							
		2002															0020	117	
	JΡ	2004	5204	73		T2		2004	0708		JP 2	002-	5789	78		2	0020	117	
PRIC	RIT	Y APP	LN.	INFO	. :						US 2	001-	2625	86P		P 2	0010	118	
											WO 2	002-	US14	50	•	W 2	0020	117	
AB	Di	sclos	ed a	re i	onen	e po	lyme	rs h	avin	an an	timi	crob	ial a	acti	vity	. 11	Ione	ne	

AB Disclosed are ionene polymers having antimicrobial activity. "Ionene polymers" as used in this invention are cationic polymers in which a substantial proportion of the atoms providing the pos. charge are quaternized nitrogens located in the main polymeric chain or backbone of the polymer rather than in pendant groups. Also disclosed are

antimicrobial compns. comprising ionene polymers and methods for treating microbial infections in mammals comprising the step of administering to a mammal, a therapeutically effective amount of at least one antimicrobial composition of the invention. An example polymer prepared was poly(hexamethylene

biguanidine-alt-4,9-dioxadodecylbiguanide) (I,

(NHC(:NH)NHC(:NH)NH(CH2)6NHC(:NH)NHC(:NH)NH(CH2)3O(CH2)4O(CH2)3)x). In vitro and in vivo activities were determined for the polymers.

IC ICM A61K031-785

ICS A61K031-787; A61K031-80; A61P031-04

CC 1-5 (Pharmacology)

Section cross-reference(s): 10, 35, 63

IT 28728-55-4P 31987-01-6P 53037-01-7P 53037-02-8P 53037-46-0P 53037-50-6P 158400-74-9P **158446-46-9P** 443303-47-7P

443303-48-8P 443303-49-9P 443303-50-2P 443303-51-3P 443303-52-4P 443303-53-5P 443303-54-6P 443303-55-7P 443303-56-8P 443303-57-9P

443303-58-0P 443303-59-1P 443303-60-4P 443303-62-6P

**443303-63-7P** 471280-09-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ionene polymers preparation as antimicrobial agents)

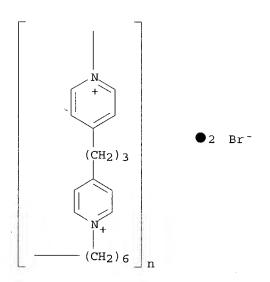
IT 158446-46-9P 443303-63-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ionene polymers preparation as antimicrobial agents)

RN 158446-46-9 CAPLUS

CN Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,6-hexanediyl dibromide) (9CI) (CA INDEX NAME)



RN 443303-63-7 CAPLUS

CN Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,9-nonanediyl dibromide) (9CI) (CA INDEX NAME)

$$(CH2)9$$

#### ●2 Br<sup>-</sup>

L15 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:555360 CAPLUS

DOCUMENT NUMBER:

INVENTOR(S):

137:103933

TITLE:

Ionene polymers and their use in treating mucositis Fitzpatrick, Richard; Goddard, Philip J.; Barker,

Robert H., Jr.; Shackett, Keith K.; Klinger, Jeffrey

D.

PATENT ASSIGNEE(S):

Geltex Pharmaceuticals, Inc., USA; Genzyme Corp.

SOURCE:

PCT Int. Appl., 36 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

		DATE	APPLICATION NO.	DATE						
WO 2002056895 WO 2002056895	A2 A3	20020725	WO 2002-US1118							
W: AE, AG, AI CO, CR, CU GM, HR, HU LS, LT, LU PL, PT, RC UA, UG, UZ RW: GH, GM, KE CY, DE, DH BF, BJ, CH	, AM, AT, CZ, DE, ID, II, LV, MA, RU, SE, VN, YU, LS, MW, ES, FI, CG, CI	7, AU, AZ, 6, DK, DM, 7, IN, IS, 8, MD, MG, 9, SE, SG, 1, ZA, ZM, 1, MZ, SD, 1, FR, GB, 1, CM, GA, 20030130	BA, BB, BG, BR, BY DZ, EC, EE, ES, FI JP, KE, KG, KP, KE MK, MN, MW, MX, MZ SI, SK, SL, TJ, TM	, GB, GD, GE, GH, , KZ, LC, LK, LR, , NO, NZ, OM, PH, , TN, TR, TT, TZ, , KZ, MD, RU, TJ, TM , ZW, AT, BE, CH, , NL, PT, SE, TR, , NE, SN, TD, TG 20020117						
PRIORITY APPLN. INFO.:			US 2001-262586E	P 20010118						
AB A method of using ionene polymers for the treatment fo mucositis and oral mucositis in mammals is provided. The method comprises administering to a mammal an effective amount of an ionene polymer to prophylactically or therapeutically treat mucositis. An example polymer prepared was poly(hexamethylenebiscyanoguanidine-alt-4,9-dioxadodecane). Also an example showed that polyionenes are effective in treating mucositis in a hamster model following irradiation therapy.										
CC 1-12 (Pharmacology) Section cross-reference(s): 35 IT 28728-55-4P 31987-01-6P 53037-01-7P 53037-02-8P 53037-46-0P										
53037-50-6P 1584 443303-48-8P 443	00-74-91 303-49-9	P <b>158446-4</b> 6 PP 443301	<b>5-9P</b> 443303-47-71 3-50-2P 443303-53	L-3P 443303-52-4P						

443303-53-5P 443303-54-6P 443303-55-7P 443303-56-8P 443303-57-9P 443303-58-0P 443303-59-1P 443303-60-4P 443303-61-5P 443303-62-6P 443303-63-7P 443303-64-8P 443303-65-9P 443303-66-0P

443303-67-1P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ionene polymers and their use in treating mucositis)

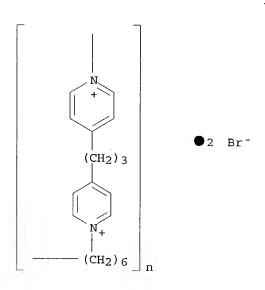
IT 158446-46-9P 443303-63-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ionene polymers and their use in treating mucositis)

RN 158446-46-9 CAPLUS

CN Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,6-hexanediyl dibromide) (9CI) (CA INDEX NAME)



RN443303-63-7 CAPLUS

Poly(pyridinium-1,4-diyl-1,3-propanediylpyridinium-4,1-diyl-1,9-nonanediyl CNdibromide) (9CI) (CA INDEX NAME)

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